

Application Serial No. 10/748,837
Amendment Dated May 18, 2010
Reply to Office Action Dated April 27, 2010

REMARKS

Claims 1-2, 4-16, 18-25, 27-34 and 36-38 are pending.

Claims 1-2, 4-16, 18-25, 27-34 and 36-38 stand rejected.

Claims 1, 23 and 24 have been amended.

Claims 1-2, 4-16, 18-25, 27-34 and 36-38 are hereby presented for reconsideration.

In the Office Action, claims 1, 9, 23, 24 and 31 are independent. The Examiner has removed the prior rejection, but now rejects these claims under 35 U.S.C. § 103(a) as being unpatentable over the newly cited Borst (U.S. Patent No. 6,366,668) in view of the previously cited Shtivelman (U.S. Patent Publication No. 2002/0054670) and Foldare (U.S. Patent No. 5,978,671). Applicants respectfully disagree with the Examiner's contentions and submit the following remarks in response.

Independent claim 1 is directed to a call routing system for use in a directory assistance system having a primary call routing device at a first call center configured to receive directory assistance calls from callers and to determine using a first call distribution process, for each of the calls, whether the calls will be handled by the first call center or by a second call center in the directory assistance system among a plurality of call centers.

A secondary router at the first call center in the directory assistance system is configured to initially route the calls within the first call center to the primary call routing device, and if the

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primary call routing device is off-line, the secondary call router employs a second default call distribution logic to route the calls among the first call center and the plurality of call centers in the directory assistance systems.

In such an arrangement, after a call is received at the first call center, the primary call router (such as ICM central controllers 34) makes call distribution decisions using a first call distribution process to distribute the calls between the first call center and the other second call centers. This first call distribution process between call centers may for example be an intelligent call routing process that helps to favorably distribute calls for frequent callers (see paragraphs [0040] - [0042]) or to achieve some other desirable distribution. In the event that the primary call routing device is offline the secondary call routing device (such as POP router 30) uses a second default call routing logic to distribute the calls. This second default call routing logic may be a basic even distribution load balancing distribution as described for example in paragraph [0070].

Turning to the rejection of the claims, the Examiner appears to reject claims 1, and 24 in view of the Borst reference as per the comments on page 2-3 of the Office Action. The Borst reference is related to call routing within a call distribution system. However, the Borst system deals with a pre-route vs. post route distribution as noted in col. 1, lines 13-37. In pre-route systems, the routing is achieved prior to reaching the call center (see column 1, lines 17-22), whereas in post-route systems, the routing/distribution is done after reaching the first call center (see col. 1, lines 25-33). Both of these systems have drawbacks.

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The Borst system implements a post route architecture with certain distribution logic features of a pre-route type system to provide an improved system (see col. 1, lines 41-48 and col. 2, lines 23-35).

In forming the rejection, the Examiner cited primarily to column 3, lines 12-57 as well as Figs. 1, 3 and 4. However, there is no secondary call routing system described at all in this system. Essentially as calls come into the system in Borst, call allocator 103 distributes the call between primary call center (ACD system 111) and non-central backup call centers (ACD systems 110 and 112 in Figure 1. As noted in column 3 lines, 42-50 calls are initially routed to the secondary call centers 110 and 112. However once they can no longer handle the calls better than the primary call center 111, they send a busy signal back, and switching node 101 *releases the call connection to the non central call center 110/112 and redirects to the central call center 111*. This is the critical feature of Borst in that it describes a post route routing architecture *but with call handling that saves bandwidth by releasing connections between call centers after transfer*.

This arrangement does not describe a system that is off line nor does it suggest a secondary router. The primary call router in the Borst system is the call allocator 103. To the extent that ACDs 111 (primary call center) and ACDs 110/112 (secondary call centers 112) are described they appear to simply provide notification of available status (to more beneficially handle call) versus unavailable (cannot more beneficially handle a call).

The Examiner's citation on page 3 to step 308 of the "busy" return signal as equivalent to

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the claimed element of the “primary call routing device being off-line” is not correct. The “busy” return signal from ACDs 110/112 are indications that they are working properly with the primary call router 103 to make sure that the calls are properly redirected to a different call center, such as primary call center 111.

As such, there is no teaching or suggestion in Borst that discloses all of the elements of claims 1 and 24. For example, there is no teaching or suggestion in Borst that discloses a secondary router at said first call center in said directory assistance system.

Moreover, to the extent that the Examiner is reading the secondary call router to be call routing functions handled at the various ACDs 110/112, there is no teaching or suggestion for a secondary router configured to initially route said calls within said first call center to said primary call routing device, and if said primary call routing device is off-line, the secondary call router employs a second default call distribution logic to route said calls among the first call center and the plurality of call centers in the directory assistance systems.

For at least this reason, Applicants respectfully request that the rejection of independent claims 1 and 24 be withdrawn. Also, as claims 2, 3-8, 25 and 17-30 depend therefrom respectively, these claims should be allowed for at least the same reasons.

Separately, the Examiner has rejected independent claims 9 and 31 under 35 U.S.C. § 103(a) as being unpatentable over Borst, Shtivelman in view of Foldare et al. (U.S. Patent No. 5,978,671). Applicants respectfully disagree with the Examiner’s contentions and submit the following remarks in response.

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Independent claim 9 is directed to a call routing system for use in a directory assistance system having a primary call routing device configured to receive directory assistance calls from callers and a frequent caller database, configured to store information corresponding to frequent callers.

A frequent caller routing module is coupled to the primary call routing device and is configured to determine if a particular caller's information is stored in the frequent caller database where if the caller's information is stored in the frequent caller database, the primary call routing device utilizes the information and determines if the caller is to receive priority call routing where the frequent caller routing module attempts to designate a desired predefined percentage of calls of the total numbers of calls to the directory assistance system as priority calls.

Such an arrangement provides for priority routing of calls, such as routing to more experienced call handling agents and shorter wait times for customers intended to be served with priority. For example, as noted in paragraph [0035] of the present application, this allows the system to set a percentage of calls out of the total calls received that are treated in a priority manner in order to improve service to those customers.

To form the rejection, the Examiner states that Borst teaches a frequent call routing module (103) which attempts to designate a predefined percentage of calls of the total number of calls to said directory assistance system. Col. 1, lines 53-54 and col. 5, lines 25-30. The Examiner completes the rejection by arguing that Shtivelman teaches a frequent caller database.

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(Office Action at pgs. 3-4)

Firstly, Applicants note that the present claims call for a call routing arrangement that includes a "...frequent caller routing module coupled to said primary call routing device...[that] ...determines if said caller is to receive priority call routing wherein said frequent caller routing module attempts to designate a desired *predefined percentage of calls of the total numbers of calls to said directory assistance system as priority calls.* As noted above, this means that the primary call routing device gives preferential distribution/routing treatment to frequent callers. If for example the system gets 100,000 calls a day and there is a desire to give 5% preferential treatment, then the primary call routing device utilizes the data from frequent caller routing module to make sure that the frequent callers, best meeting the desired criteria, make up 5,000 of the routed calls that receive "priority call routing." *This is the opposite of basic volume based load distribution.*

The cited portions of Borst (col. 1, lines 53-54) are exactly the opposite of the claimed arrangement where all calls are distributed on fixed percentage to the various call centers. This is basic load distribution. Borst later describes more intelligent load distribution that avoids over trafficked call centers, *but it in no way suggest the tracking at all of frequent callers for priority call routing* as claimed by the Examiner in the last three lines of page 3 of the Office Action.

In the second half of the rejection, the Examiner argues that Sthivelman teaches the element that "the frequent caller routing module attempts to designate a desired predefined percentage of calls of the total numbers of calls to the directory assistance system as priority

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calls," the Examiner cites to Shtivelman Figs. 1-3, step 87 (Fig.3) and paragraphs [0046] and [0053].

However, as noted in the prior Amendments, Shtivelman is directed to an emergency call distribution system that queues overflow calls at a call center. However, when emergency personal are trying to call with vital information they may be looped into the queue. Shtivelman offers a form of coding to determine if the caller is important (emergency services) and then if they are, the call is pushed through out of the queue to the original destination (the emergency operator). Step 87 in Figure 3 (paragraph [0053]) of Shtivelman describes this process.

Contrary to the Examiner's assertion, there is no designated desired predefined percentage of calls at all of the total numbers of calls to the directory assistance system as priority calls. The only designated calls as priority calls in Shtivelman are those from authorized emergency personal (or others with such codes). These calls can not be a predetermined percentage as their quantity can not be known in advance.

As such, Applicants respectfully submit that the cited prior art, either alone or in combination with one another, does not teach or suggest all of the elements of independent claims 9 and 31. For example, there is no teaching or suggestion in any one of Shtivelman, Borst or Foldare that discloses *a frequent caller routing module that attempts to designate a desired predefined percentage of calls of the total numbers of calls to the directory assistance system as priority calls.*

For at least this reason, Applicants respectfully request that the rejection of independent

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claims 9 and 31 be withdrawn. Also, as claims 10-16, 18-22, 32-34 and 36-38 depend therefrom respectively, these claims should be allowed for at least the same reasons.

Applicants note that independent claim 23 includes at least the above described features of claims 1 and 9 and should be deemed allowable for at least the same reasons set forth above in support of those claims.

In view of the foregoing Applicants respectfully submit that pending claims 1-2, 4-16, 18-25, 27-34 and 36-3 are in condition for allowance, the earliest possible notice of which is earnestly solicited. If the Examiner feels that an interview would facilitate the prosecution of this Application, they are invited to contact the undersigned at the number listed below.

Respectfully submitted,

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